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(54) **METHOD FOR ALLOCATING BANDWIDTH
IN AN OPTICAL NETWORK**

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370/252

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(57) **ABSTRACT**

A method is provided to allocate bandwidth from a first node to a second node in a optical network. The method begins by accepting a request from an end-user, who requests a virtual path between the first node and the second node. The first and second nodes are ones of a number of such nodes. Each one of the nodes is coupled to at least one other node by at least one of a number of optical links. The nodes and links form the optical network. The virtual path has a bandwidth requirement associated therewith. Next, the service provider determines an amount of bandwidth available between the first and the second nodes. The service provider then allocates at least a portion of the amount of bandwidth available between the first and second nodes equal to the bandwidth requirement, so long as the bandwidth requirement is not greater than the amount of bandwidth available between the first and second nodes.

32 Claims, 13 Drawing Sheets

